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BANNER & WITCOFF, LTD.
1100 13th STREET, N.W.
SUITE 1200
WASHINGTON, DC 20005-4051

EXAMINER
MITCHELL, DANIEL D

ART UNIT	PAPER NUMBER
2477	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/529,257	AALTONEN, JANNE
	Examiner	Art Unit	
	DANIEL MITCHELL	2477	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>18 August 2010</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>25-28,31-36,39-44 and 47</u> is/are pending in the application.

    4a) Of the above claim(s) <u>1-24,29,30,37,38,41,45 and 46</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>25-28,31-36,39-44 and 47</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>25 March 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment filed on 8/18/2010 has been entered. Claims 25, 26, 27, 31, 33, 34, 35, 40, 42-44, and 47 have been amended. Claims 1-24, 29, 30, 37, 38, 41, 45 and 46 are canceled. Claims 25-28, 31-36, 39-44, and 47 are still pending in this application, with claims 25, 33 and 40 being independent.

Response to Arguments

2.   Applicant's arguments filed 8/18/2010 have been fully considered but they are not persuasive.

Applicants argue on pg. 6 the allowable subject matter has been incorporated in each set of independent claims. However the Applicant's amendment includes the allowable subject matter in an alternative form within the claim, where the allowable limitation is not a requirement but an option. In particular, the claim states "wherein the predetermined condition is one of" where if any of the options of the claim are rejected, the claim as a whole will be rejected. Therefore the claim is not in proper form for allowance. Applicant has submitted no further arguments.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 25-27, 31-35, 39-43, and 47 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Maggenti (US Patent No. 6,633,765 B1) in view of Kanterakis (US

Patent No. 7,099,346 B1) in further view of Dan et al. (US Patent No. 5,561,637),

hereinafter referred as Dan.

Regarding claim 25, Maggenti teaches an apparatus (fig. 8) comprising:

a processor **(col. 15 lines 60 teaches a processor 806)**; and

a memory storing program instructions, the memory and the program

instructions configured to, with the processor, cause the apparatus at least to

perform **(col. 15 lines 60-63 a memory for storing instructions)**;

process data received from a first host **(col. 15 line 49 to col. 16 line 20

teaches element 804 to receive data)**;

cause transmission of said data to one or more further hosts **(col. 15 line

49 to col. 16 line 20 teaches element 802 to transmit data)**;

define a group comprising one or more further hosts, wherein a further

host is added to the group in response to the reception of a request **(col. 12

lines 33-67 teaches a base station receiving a request from a mobile device

for joining a multicast group; col. 15 line 60 teaches further managing the

multicast groups)**; and

storing received data **(808 teaches a storage device for forwarding

data)**,

wherein said apparatus is configured to forward the data to said further

hosts in said group, and wherein the processor is configured to limit the group to

further hosts situated at the same location **(col. 12 lines 33-67 teaches the**

multicast group is limited to the geographic region of the serving base

station).

However Maggenti does not expressly disclose a cache, wherein

said apparatus is configured to store received data in the cache until a

predetermined condition is met and, in response to the meeting of this

condition, to forward the data to said further hosts in said group; wherein

the predetermined condition is one of a receipt of a predetermined number

of request and expiry of a time limit.

Kanterakis teaches in col. 3 lines 60 to col. 4 line 23 an RNC radio

network controller that will store the received data in a buffer until a

predetermined condition is met. In particular, Kanterakis teaches an

accumulation timer for storing the receive packets in the buffer and upon

expiration of the timer the data is forwarded to mobile devices. Kanterakis

teaches in col. 14 lines 10-24 the RNC is comprised in a base station, therefore

the base station is equated to the base station of Maggenti.

Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to modify the teachings of Maggenti to include utilizing a

storing data until a predetermined condition. One would be motivated as such in

order increase the efficiency of a network by removing bursty data transmissions (col. 3 lines 28-29).

However Maggenti and Kanterakis do not expressly disclose wherein the predetermined condition is one of a predetermined number of requests.

Dan teaches a system for multicasting data as the primary reference (see abstract). Dan further teaches in **col. 3 lines 21-45** teaches a condition for the multicasting of stored data is the receipt of a threshold amount of requests for the multicast group.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Maggenti and Kanterakis to include a condition of a predetermined number of received requests. One would be motivated as such in order simplify a network by reducing the buffer requirement at the network elements.

Regarding claim 26, Maggenti teaches wherein one or both of a request and a file is transmitted between the apparatus and the first host via a cellular communications network **(col. 12 lines 33-67 teaches the base station and the mobile device are in a cellular network, where the mobile device sends requests to the base station)** and the location of the further host is defined in terms of a cell, so that the group is limited to further hosts situated in an area covered by a single cell **(col. 12 lines 33-67 teaches the mobile**

devices are located in the same coverage area which is interpreted as a
cell)**.

Regarding claim 27, Maggenti teaches further configured to forward a file
over a wireless communication network, being the last network element (base
station 104) located before an air-interface in a file delivery path between the first
host and one or more further hosts **(fig. 3, col. 12 lines 33-67 teaches a base
station 104 to forward the file over the wireless network between the
source and the mobile devices)**.

Regarding claim 31, Maggenti teaches further configured to receive
requests from the further hosts via a first communication path and to forward
data to the further hosts via a second communication path, separate from the first
communication path **(col. 12 lines 33-67 teaches receiving requests from a
first path and multicasting the data to a second network)**

Regarding claim 32, Maggenti teaches wherein the first communication
path and the second communication path comprise separate networks **(col. 12
lines 33-67 teaches a first and second path in separate networks, also see
fig.3)**.

Regarding claim 33, Maggenti teaches a method comprising receiving a request for a file from a first host (mobile device) at a network element (base station) **(col. 12 line 33-67 teaches receiving a request for multicast data at a base station)**;

retrieving the file from a second host **(col. 12 lines 33-67 teaches receiving the multicast data from the source)**;

storing the file in a cache **(col. 15 lines 42-49 teaches a storage device 808 for storing data)** associated with the network element;

defining, by a network element, a group including the first host **(col. 12 lines 33-67 teaches adding the mobile to a multicast group)**;

waiting for a period of time until a predetermined condition is met where **(col. 13 lines 10-14 teaches a time period as the predetermined condition)**, if further requests for said file are received by the network element from one or more other hosts before the period of time expires, then said one or more other hosts are added to the group **(col. 13 lines 1-52 teaches the base station includes a countdown timer for receiving a response from the mobile devices to join a multicast. Upon expiration of the timer, no responses to join the group will be admitted)**; and

forwarding the file to the first host and to any other hosts in said group, wherein the group is limited to the first host and other hosts situated at the same location as the first host **(col. 12 line 33-67 teaches forwarding the multicast**

**data and limiting the multicast group to the geographic region of the
serving base station)**.

However Maggenti does not expressly disclose storing the file in a cache
associated with the network element; and wherein the predetermined condition is
one of a receipt of a predetermined number of requests and expiry of a time limit.

Kanterakis teaches in col. 3 lines 60 to col. 4 line 23 an RNC radio
network controller that will store the received data in a buffer (cache) until a
predetermined condition is met. In particular, Kanterakis teaches an
accumulation timer for storing the received packets in the buffer and upon
expiration of the timer the data is forwarded to mobile devices. Kanterakis
teaches in col. 14 lines 10-24 the RNC is comprised in a base station, therefore
the base station is equated to the base station of Maggenti.

Therefore, it would have been obvious to one of ordinary skill in the art at
the time of the invention to modify the teachings of Maggenti to include utilizing a
storing data until a predetermined condition. One would be motivated as such in
order increase the efficiency of a network by removing bursty data transmissions
(col. 3 lines 28-29).

However Maggenti and Kanterakis do not expressly disclose wherein the
predetermined condition is one of a predetermined number of requests.

Dan teaches a system for multicasting data as the primary reference (see
abstract). Dan further teaches in **col. 3 lines 21-45** teaches a condition for the

multicasting of stored data is the receipt of a threshold amount of requests for the multicast group.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Maggenti and Kanterakis to include a condition of a predetermined number of received requests. One would be motivated as such in order simplify a network by reducing the buffer requirement at the network elements.

Regarding claim 34, Maggenti teaches wherein one or both of a request and the file is transmitted between the network element (base station) and the first host (mobile device) via a cellular communications network **(col. 12 lines 33-67 teaches the base station and the mobile device are in a cellular network)** and another host is considered to be at the same location as the first host if it is situated in an area covered by the same cell **(col. 12 lines 33-67 teaches the mobile devices are located in the same coverage area which is interpreted as a cell)**.

Regarding claim 35, Maggenti teaches wherein the file is forwarded over a wireless communication network, the network element (base station) being the last network element before an air-interface in a file delivery path between the second host (source device) and the first host (mobile device) **(fig. 3, col. 12**

lines 33-67 teaches a base station 104 to forward the file over the wireless network between the source and the mobile devices).

Regarding claim 39, Maggenti teaches wherein the request is received via a first communications network **(col. 12 lines 33-67 teaches receiving a request at the base station over a wireless network)** and the file is forwarded via a second communications network **(col. 12 lines 33-67, fig. 3 suggest the file is forwarded from a source from either network 118 or 316)**.

Regarding claim 40, Maggenti teaches a memory **(storage 808 col. 15 lines 42-49)** storing computer-executable instructions that, when executed, cause an apparatus (base station) at least to perform receiving a request for a file from a first host (mobile device) at the apparatus **(col. 12 line 33-67 teaches receiving a request for multicast data at a base station)**;

retrieving the file from a second host (source device) **(col. 12 lines 33-67 teaches receiving the multicast data from the source)**;

storing the data in a cache associated with the apparatus **(col. 15 lines 42-49 teaches a storage device 808 for storing data)**:

defining a group including the first host **(col. 12 lines 33-67 teaches adding the mobile to a multicast group)**;

waiting for a period of time until a predetermined condition is met **(col. 13 lines 10-14 teaches a time period as the predetermined condition)** where, if further requests for said file are received by the network element from one or

more other hosts before the period of time expires, then said one or more other

hosts are added to the group **(col. 13 lines 1-52 teaches the base station**

includes a countdown timer for receiving a response from the mobile

devices to join a multicast. Upon expiration of the timer, no responses to

join the group will be admitted); and

forwarding the file to the first host and to any other hosts in said group,

wherein the group is limited to the first host and other hosts situated at a same

location as the first host **(col. 13 lines 1-52 teaches the base station includes**

a countdown timer for receiving a response from the mobile devices to join

a multicast. Upon expiration of the timer, no responses to join the group

will be admitted).

However Maggenti does not expressly disclose storing the file in a cache

associated with the network element; and wherein the predetermined condition is

one of a receipt of a predetermined number of request.

Kanterakis teaches in col. 3 lines 60 to col. 4 line 23 an RNC radio

network controller that will store the received data in a buffer (cache) until a

predetermined condition is met. In particular, Kanterakis teaches an

accumulation timer for storing the received packets in the buffer and upon

expiration of the timer the data is forwarded to mobile devices. Kanterakis

teaches in col. 14 lines 10-24 the RNC is comprised in a base station, therefore

the base station is equated to the base station of Maggenti.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Maggenti to include utilizing a storing data until a predetermined condition. One would be motivated as such in order increase the efficiency of a network by removing bursty data transmissions (col. 3 lines 28-29).

However Maggenti and Kanterakis do not expressly disclose wherein the predetermined condition is one of a predetermined number of requests and an expiry of a timer.

Dan teaches a system for multicasting data as the primary reference (see abstract). Dan further teaches in **col. 3 lines 21-45** teaches a condition for the multicasting of stored data is the receipt of a threshold amount of requests for the multicast group.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Maggenti and Kanterakis to include a condition of a predetermined number of received requests. One would be motivated as such in order simplify a network by reducing the buffer requirement at the network elements.

Regarding claim 42, Maggenti teaches wherein one or both of a request and the file is transmitted between the network element (base station) and the first host via a cellular communications network **(col. 12 lines 33-67 teaches the base station and the mobile device are in a cellular network, where the**

mobile device sends requests to the base station) and another host (mobile device) is considered to be at the same location as the first host if it is situated in an area covered by the same cell **(col. 12 lines 33-67 teaches the mobile devices are located in the same coverage area which is interpreted as a cell).**

Regarding claim 43, Maggenti teaches wherein the file is forwarded over a wireless communication network, the network element (base station) being the last network element before an air-interface in a file delivery path between the second host (source device) and the first host (mobile device) **(fig. 3, col. 12 lines 33-67 teaches a base station 104 forwarding the file over the wireless network between the source and the mobile devices).**

Regarding claim 47, Maggenti teaches the wherein the request is received via a first communications network **(col. 12 lines 33-67 teaches receiving a request at the base station over a wireless network)**, and the file is forwarded via a second communications network **(col. 12 lines 33-67, fig. 3 suggest the file is forwarded from a source from either network 118 or 316)**.

5.   Claims 28, 36, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maggenti and Kanterakis in view of Taylor (US Publication No. 2003/0043760 A1).

Regarding claim 28, Maggenti and Kanterakis teach an apparatus as the parent claim.

However Maggenti and Kanterakis do not expressly disclose wherein said apparatus comprises a router.

Taylor teaches in par. 5 a base station. Taylor further teaches in par. 5 the base station comprises a router.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Maggenti and Kanterakis to include a base station comprising a router. One would be motivated as such in order to route packets through the system par. 5.

Regarding claim 36, Maggenti and Kanterakis teaches a method as the parent claim.

However Maggenti and Kanterakis do not expressly disclose wherein the network element comprises a router.

Taylor teaches in par. 5 a base station. Taylor further teaches in par. 5 the base station comprises a router.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Maggenti and Kanterakis to include a base station comprising a router. One would be motivated as such in order to route packets through the system col. 4 lines 17-41.

Regarding claim 44, Maggenti and Kanterakis teaches computer readable medium as the parent claim.

However Maggenti and Kanterakis do not expressly disclose wherein the network element comprises a router.

Taylor teaches in par. 5 a base station. Taylor further teaches in par. 5 the base station comprises a router.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Maggenti and Kanterakis to include a base station comprising a router. One would be motivated as such in order to route packets through the system col. 4 lines 17-41.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7.   Any response to this action should be **faxed** to (571) 173-8300 or **mailed** to:

                          Commissioner of Patents
                          P.O. Box 1450
                          Alexandria, VA 22313-1450

                          Hand delivered responses should be brought to:
                          Customer Service Window
                          Randolph Building
                          401 Dulany Street
                          Alexandria, VA 22314

        Any inquiry concerning this communication or earlier communications from the

examiner should be directed to DANIEL MITCHELL whose telephone number is

(571)270-5307. The examiner can normally be reached on Monday - Friday 8:00 am -

5:00 pm EST.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chirag G. Shah can be reached on 571-272-3144. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. M./
Examiner, Art Unit 2477
                    /Chirag G Shah/
                    Supervisory Patent Examiner, Art Unit 2477